

Scaffold functionalization to support a tissue biocompatibility

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(Article begins on next page)



## Functional 3D Tissue Engineering Scaffolds

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Irene Carmagnola <sup>1</sup>, Elia Ranzato <sup>2</sup>, Valeria Chiono <sup>1</sup>

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#### Abstract

The aim of this chapter is to illustrate the most applied methods for covalent and non-covalent functionalization of scaffold surface with biomimetic molecules, including bioactive proteins, [peptides](#), and [polysaccharides](#) to improve scaffold [biocompatibility](#). Additionally, the main techniques for surface physicochemical characterization are presented together with the commonly used approaches for in vitro testing of biocompatibility. Finally, new perspectives in scaffold [surface functionalization](#) and application of functionalized scaffolds are discussed in the conclusions.



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#### Keywords

Surface functionalization; bioactive molecules; surface physicochemical characterization

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